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APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF CHINA

IPF:(1992-96) $176 600 000

(CPR/91/171) - Support to the Corn Processing Technical Applications Research and Development in China

Date of approval by the AC:[1]	20 May 1992
Expected duration:	Four years
Proposed executing agency:	FAO
Government implementing agency:	Jilin Province Bureau of Light Industry; Corn Processing Technical Applications Research and Development Center (CPTARDC)
Proposed UNDP contribution:	$1 409 000 Source of funds: IPF
Government cost sharing:	$ 150 000
Total UNDP budget:	$1 559 000

Project background

With an annual production of about 70 million tons of corn, China ranks as the second largest producer of corn in the world and the Northeastern provinces accounting for about 70 per cent of total grain output. Jilin Province is the largest corn producer in the country with an average output of 12 million tons per year. Corn production is expected to continue growing in these provinces. China's Eight Five-Year Plan calls for increased grain production including Jilin Province becoming the major corn industry development area, with the strengthening of starch production and processing playing an important role in this plan. The strategy calls for increasing the value added of corn in its province of origin before marketing it to other regions. At present, however, it is estimated that about a million tons are currently wasted or lost. The corn processing industry is still unable of meeting the challenge of current and future markets for more application-specific starch products due, in a large extent, to the lack of adequate processing technology and to the little understanding of the foundations of corn wet-milling.

In Jilin, out of a total of approximately 30 mostly small and medium size factories only 4-5 are engaged in (very limited) secondary processing - not even the two medium-size plants operating with imported equipment make full use of all the by-products as is standard practice in developed economies. The strategy of the Government is to turn Jilin Province, by 1996, from simply the largest corn-producing area into the major agro-industry area based on corn with starch production and processing playing a major role in this. Rather than selling a low value-added product to other regions, through introduction of processing capacity, a higher value-added product will be shipped. Additionally, the processed starch

[1] **This Fact Sheet reflects the status of the project/revision at the time it was approved by the Action Committee; modifications to the project/revision may have occurred subsequently.**

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products are in high demand in industries such as paper, pharmaceuticals, textiles and food processing (as sweeteners), gasahol, animal feed, and others. The key to achieving this transformation of the corn processing industry is the introduction of appropriate know-how in the newly created Corn Processing Technical Applications Research and Development Center (CPTARDC) located in Jilin Province's Light Industry Design and Research Institute. This is the sole application-oriented R & D center based on corn in the country.

Description of project

The development objective of the project is to increase the industrial utilization of corn by institutionalizing the provision of R & D services to the corn processing industry, providing training for management and technical personnel on both provincial and national levels, and placing special emphasis on ensuring that the research carried out at the Center is tested in the market and responds to actual demand from the industry by including the starch industry association on the Project Coordinating Committee.

The immediate objectives of the project are to: (a) strengthen the CPTARDC to develop and transfer technology to the corn processing industry; (b) introduce know-how for improving corn wet-milling technology and by-products utilization; and (c) develop know-how through pilot manufacturing, for starch derived products with wide application in industry and with clear market prospects.

Using both external and national economists, the project will commence with establishment of a baseline economic and financial study of the options and opportunities in the sector addressing such issues as market, technology alternatives, environmental impact, pricing structure, and a basis for considering and attracting joint venture investments. Based on the study, decisions will be made as to the types of R & D, equipment and investment decisions that are needed, including consideration of the income which can accrue to the CPTARDC through provision of services to the industry. The training plan also will be developed following the analysis of the economic study. In implementing the project, consideration will be accorded to use of TCDC, UNISTAR and TOKTEN modalities whenever appropriate. The current percentage of women on staff is 46 per cent; and the project intends to target 50 per cent to be achieved through training opportunities.

Inputs

UNDP will provide eight work/months of CTA services to advise CPTARDC on research and management issues and corn product development, 12 work/months of international consultant services in corn wet-milling, starch applications for paper, oil well drilling, textiles, food, pharmaceuticals, pastes, sweeteners, fodder, quality control and other industrial uses, and market evaluation issues; national experts for testing and evaluation, funds for evaluations; 67 work/months for 14 individual fellowships in the same areas of expertise as the consultants; study tours; expendable equipment; non-expendable equipment related to a pilot and test operations in the same technical fields, computer and a vehicle; and miscellaneous costs.

Financial data

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Personnel	362 000
Training	388 000
Equipment	773 000
Miscellaneous	36 000
Total	1 559 000

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